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# State of Utah
**DEPARTMENT OF NATURAL RESOURCES**

MICHAEL R. STYLER
*Executive Director*

**Division of Oil Gas and Mining**

JOHN R. BAZA
*Division Director*

March 21, 2008

Jim Runquist
TME Asphalt Ridge
4526 Ridgeview Drive
Eagan, MN 55123

Subject: Fourth Review of Notice of Intention to Commence Large Mining Operations, TME Asphalt Ridge LLC, TME Asphalt Ridge #1 , M/047/089, Uintah County, Utah

Dear Mr. Runquist:

The Division has completed our fourth review of your draft Notice of Intention to Commence Large Mining Operations for the mine, located in Uintah County, Utah, which was received February 29, 2008. The attached comments will need to be addressed before tentative approval may be granted.

The comments are listed below under the applicable Minerals Rule heading. Please address only those items requested in the attached technical review. Send replacement pages of the original notice **using redline and strikeout text** and indicate how these are to be incorporated using Form-MR-REV-att found on the Divisions web page. After the notice is determined technically complete you will be asked that you send us two clean copies of the complete; one copy will be returned.

The Division requests that submittals are made according to the following format. Notices and changes should be three hole punched, maps folded and placed in a plastic 8 ½ by 11 sleeve, and binders provided for new notices, revisions, applications, or other changes of 30 pages or more (binders need only be provided once). An additional electronic copy is appreciated. You may request information relating to the relating to the location, size, and nature of the mineral deposit to be kept confidential. Confidential information must be clearly marked and provided in a separate binder.

If you have any questions in this regard please contact me (801)538-5258, Tom Munson (801)538-5321, Paul Baker (801)538-5361, or Leslie Heppler (801)538-5357 of the Minerals Staff. If you wish to discuss this review, please contact us at your earliest convenience. Thank you for your cooperation in completing this permitting action.

Sincerely,

Susan M. White
Mining Program Coordinator
Minerals Regulatory Program

SMW:lk:pb
Task #2270
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**FOURTH REVIEW OF NOTICE OF INTENTION TO COMMENCE LARGE MINING OPERATIONS**

**TME Asphalt**
**Mine name**

**M/047/089**

**R647-4-104 - Filing Requirements and Review Procedures**

**R647-4-104 - Operators, Surface and Mineral Ownership**

**R647-4-105 - Maps, Drawings & Photographs**

105.1 Topographic base map, boundaries, pre-act disturbance
105.2 Surface facilities map
105.3 Drawings or Cross Sections (slopes, roads, pads, etc.)

The diversions are well defined in this plan. It is still not clear how the diversions will intercept the natural drainages and allow them to enter the constructed diversion without causing the diversion to possibly fail. Please explain how this will be handled. (TM)

The plan also shows diversions across the face of the overburden pile and it does not make good sense from an erosion perspective, since diversions like this are a maintenance problem. The Division would prefer that the pile be left in a rough pock marked surface or ripped along the contour with a berm at its base with several small rock check dam outlets. Overall it would be less erosive and the goal would be to revegetate this pile. Please comment on this possible design change. (TM)

Drawing 2C and 2D – No haul road access is shown to the pit; The Division prefers the perennial stream crossing be limited to the one crossing as shown on other maps; document the access on Drawing 2C and 2D (lah)

Drawing 3A – Why is the "soil surface recovery area" due south of the stream crossing being disturbed adjacent to the stream? Is this a topsoil borrow, if so, an alternate plan is preferred by the Division; document on drawings (lah)

Drawing all – Regrading for storm water management is shown outside the permit boundary on the northwest boundary limit, this is not acceptable; possible solutions could include, but is not limited to, either shrinking the pit size or changing the permit boundary; document on drawings. (lah)

Drawing all – No access roads are shown to the process areas; document on drawings (lah)

Drawing all – Utility lines are not shown on maps as per R647-4-105 1.12, but Pipeline / Electric listed in Table 2; document on drawing (lah).

Drawings all – No conveyers or roads are shown to Silica sand area; address how access is obtained and detail any stream crossing; document on drawings (lah)

Drawings all – Bridge(s) site(s) are not shown but listed on Table 2; all bridges must be documented on drawings. (lah)

Geologic cross section in figure 4 does not match written description on page 22 of written text; provide accurate geologic cross section. (lah)

No geologic map included; provide accurate geologic map. (lah)

Several Figures are not labeled; include labels on figures (lah)

If a figure number (table etc.) is no longer used, but still in sequence; submit a page with " Figure 5 - Page intentional left blank"

Tables should have labeled page numbers, include page numbers (ie 1 of 2 on Table 2) (lah)

105.4 Photographs

Vol 2 – Figure 2 The one photo taken across the perennial stream is not near future disturbed area; include photos from adjacent to area to be disturbed and the perennial stream (lah)

Vol 2 – Photo 37, 38, & 39 location is not shown on Figure 2; document locations on Figure 2. (lah)

**R647-4-106 - Operation Plan**

106.1 Minerals mined
106.2 Type of operations conducted, mining method, processing etc.
106.3 Estimated acreages disturbed, reclaimed, annually.
106.4 Nature of materials mined, waste and estimated tonnages
106.5 Existing soil types, location, amount
106.6 Plan for protecting & redepositing soils

Please show what seed mix will be used for interim revegetation on the soil piles. (PBB)

106.7 Existing vegetation - species and amount

Table 1 in Appendix 3 is a list of species observed in the area, but there are species encountered in the vegetation transects, as shown in Table 2 of this appendix, that are not included in Table 1. Please make this correction. (PBB)

Vol 2 – Figure 3 No vegetation transect through the perennial stream area near future disturbed area; provide. (lah)

106.8 Depth to groundwater, extent of overburden, geology

Provide the geologic occurrence for the perennial spring that is the head waters to the perrenial stream running through the permit area. Please comment on this as it relates to depth of ground water. What contingencies are planned if groundwater is found during mining? (TM)

106.9 Location & size of ore, waste, tailings, ponds

The pond in the plan shows a riprapped bottom and yet states that it will need to be frequently cleaned. It seems that riprapping the bottom of the pond may not be appropriate. Please elaborate on the need for this treatment. The other concern is what is intended if the pond discharges to the undisturbed drainage? How will that discharge be controlled from the outlet of the pond to the undisturbed drainage. It could also be a prudent design to put rock baffles in the pond instead of riprapping the bottom so the sediment will tend to settle in the upper end of the pond. Please comment on this design suggestion.(TM)

Written text list 13.8 million tons (listed on page 30 vs. 16.8 million tons (listed on Table 1)), of overburden, address numeric difference. (lah)

Vol 2 – page 1 para 2 written text notes future expansion to 650 acres, all other documents list under 210 acres; clarify in written text (lah)

106.10 Amount of materials

**R647-4-108 - Hole Plugging Requirements**

The plan mentions exploratory drilling and says maps depicting locations of holes temporarily plugged during any calendar year and those remaining to be closed will be included in the annual reports. Exploratory drilling is allowed under a Notice of Intention to Commence Large Mining Operations, but the specific activity needs to be identified, including locations of drill holes and if appropriate included in the reclamation surety calculation. (PBB)

**R647-4-109 - Impact Assessment**

109.1 Impacts to surface & groundwater systems

Written text (listed on page 34, para 1) refers to Appendix 7; Appendix 7 contains no documents; provide documents to be inserted. (lah)

NOTE - DWQ letter received on March 14th 2008 notes on page 2 of the letter the DWQ permit only applies to pilot project and NOT full scale production; (lah)

109.2 Impacts to threatened & endangered wildlife/habitat

Based on the statement in Section R647-4-109, page 34, it appears the operator will be using 3 cfs of water. This comes to 2172 acre-feet per year. If the actual use will be less than this amount, the plan should show how much water will be used. The plan says that water withdrawal at the rate of 3 cfs is not expected to have any adverse impact on aquatic species in the Green River, but any water consumption in the Upper Colorado River Basin is considered to jeopardize the continued existence of the four endangered fish species in this area. Please modify the plan to identify this impact. (PBB)

109.3 Impacts on existing soils resources
109.4 Slope stability, erosion control, air quality, safety

How will the 'Fugitive Dust Control Plan' (noted on page 35) be implemented on the silica sand stockpile sites? Provide (lah)

109.5 Actions to mitigate any impacts

Please describe how effects on the endangered fish of the Upper Colorado River Basin will be mitigated. If there is a connection to a federal permitting action, it should be possible to pay a one-time fee to mitigate the impact. Otherwise, it will be necessary to develop a habitat conservation plan and have it approved by the Fish and Wildlife Service. (PBB)

**R647-4-110 - Reclamation Plan**

110.1 Current & post mining land use
110.2 Roads, highwalls, slopes, drainages, pits, etc., reclaimed

The final pit design shows a bowl shaped area. This will lend itself to forming a small drainage along its centerline. The plan talks about stable internal drainage corridors and use of well graded 4 inch riprap placed in snaked alignment with step pools. None of this

is shown on the final regrading plan, so it needs to be added to figure 3 of 10. Please provide the final designs for the permanent diversions (TM)

110.3 Description of facilities to be left (post mining use)
110.4 Description or treatment/disposition of deleterious or acid forming material
110.5 Revegetation planting program

The plan says non-native species will not be used for establishing vegetation cover. This statement should be modified because the proposed seed mix includes three species of introduced plants. (PBB)

The seed mix is, as the plan says, one that was recommended by the Division, but newly-obtained information indicates Vavilov or Vavilov II Siberian wheatgrass, *Agropyron sibericum* Var. Vavilov or Vavilov II, is more drought tolerant and may work better at this site than crested wheatgrass. The Division recommends keeping crested wheatgrass in the mix, perhaps at a reduced rate of one pound per acre, but adding Siberian wheatgrass at a rate of two pounds per acre. (PBB)

There is a limited amount of disturbed area within the wetland, but this area will need different revegetation techniques than the rest of the disturbed area. The Division anticipates a simple plan would be adequate, such as planting the area densely with willow cuttings obtained from the adjacent undisturbed wetland area. The plan needs to show some detail of how this would be done, such as when the cuttings would be obtained and planted and the density of planting. (PBB)

**R647-4-112 – Variance**

**R647-4-113 – Surety**

113.3 Surety acceptance if accurate and verifiable

Tables and bond calculations have not been completed in appendix 5; include each line items from Table 2 for structures and facilities, also include dimensions for the various surface disturbance; Complete bond calculations. (lah)

The comments are not comprehensive, but provide an over view of some concerns. The Division appreciates using page numbers in the spreadsheet fields as a cross reference for reference ease. In addition, providing surety cost estimate table of contents is excellent as well. Please create two sections in the surety spreadsheet, a direct costs section and an indirect cost section. Post closure monitoring will be a separate section. Please structure the spreadsheet in this way. (lah)

Please structure the spreadsheet to show the various 'phases'. (BE)

**R647-4-115 - Confidential Information**

**R647-4-116 - Public Notice & Appeals**